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N 🌠 UNITED STATES PATENT AND TRADEMARK OFFICE

| Applicant: | George E. Barringer, Jr |
|------------|-------------------------|
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Application No.: 10/601,083 Group Art Unit:

Filed: June 20, 2003 Examiner: Not assigned

Confirmation No.: 7061

Title: Fluid Interface for Bioprocessor Systems

## 

## **INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir: This Information Disclosure Statement is submitted: under 37 CFR 1.129(a), or (First/Second submission after Final Rejection) [X]under 37 CFR 1.97(b), or (Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination). [ ] under 37 CFR 1.97(c) together with either: a Statement under 37 CFR 1.97(e), as checked below, or a \$180.00 fee under 37 CFR 1.17(p), or (After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first) [ ] under 37 CFR 1.97(d) together with: a Statement under 37 CFR 1.97(e), as checked below, and a \$180.00 fee under 37 CFR 1.17(p), or (Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

[ ] under 37 CFR 1.97(i):
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.

(Filed after payment of issue fee)

[ ]

[X]

## Statement Under 37 CFR 1.97(e) Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. Statement Under 37 CFR 1.704(d) (Patent Term Adjustment) Àpplies to original applications (other than design) filed on or after May 29, 2000 Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement. [X]Enclosed herewith is form PTO-1449: [X]Copies of the cited references are enclosed. Since this application was filed after June 30, 2003, copies of issued U.S. patents [ ] and published U.S. applications are not required and are not being provided. Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references. The listed references were cited in the enclosed International Search Report in a counterpart foreign application. The "concise explanation" requirement (non-English references) for references AM, AN, and AR2 under 37 CFR 1.98(a)(3) is satisfied by: [ ] the explanation provided on the attached sheet. the explanation provided in the Specification.

submission of the enclosed International Search Report.

the enclosed English language abstract/summary for AN and AR2. English claims are provided in AM on pages 5 and 6.

and/or foreign Office Action.

submission of the enclosed English-language version of a foreign Search Report

| [X]                    | Applic            | cant requests that the following non-published pending applications be considered:   |
|------------------------|-------------------|--|
| Examiner's<br>Initials |                   |  |
|                        |                   | U.S. Patent Application No. 10/601,096, by Shin-Fuw Lin and George E. Barringer, Jr., filed June 20, 2003, Docket No.: 3551.1000-000   |
|                        |                   | U.S. Patent Application No. 10/601,277, by George E. Barringer, Jr., filed June 20, 2003, Docket No.: 3551.1002-000  |
|                        |                   | U.S. Patent Application No. 10/601,181, by George E. Barringer, Jr., filed June 20, 2003, Docket No.: 3551.1003-000  |
|                        |                   | U.S. Patent Application No. 10/600,177, by George E. Barringer, Jr., Stephen C. Phillips and Mark J. Phillips, filed June 20, 2003, Docket No.: 3551.1004-000  |
|                        |                   |  |
|                        |                   | Examiner Date  |
|                        | [ X ]<br>[ ]      | A copy of each above-cited application, including the current claims, is enclosed. A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. |
|                        |                   | ris requested to return a copy of the above list of pending applications indicating which re considered with the next office communication.  |
| It is red              | quested           | that the information disclosed herein be made of record in this application.   |
| Metho                  | d of pay          | ment:  |
| []                     |                   | ek for the fee noted above is enclosed, or the fee has been included in the check with the panying Reply. A copy of this Statement is enclosed.  |
| [ ]                    | Please<br>enclose | charge Deposit Account 08-0380 in the amount of \$[ ]. A copy of this Statement is ed.   |
| [X]                    | Please            | charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.   |
|                        |                   | Respectfully submitted,  |
|                        |                   | HAMILTON, BROOK, SMITH & REYNOLDS, P.C.  |
|                        |                   | By James M. Smith Registration No.: 28,043 Telephone: (978) 341-0036 Facsimile: (978) 341-0136   |

Concord, MA,01742-9133 Dated: /p/3//3

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ATTORNEY DOCKET NO. 3551.1005-000

APPLICATION NO. 10/601,083

APPLICANT

George E. Barringer, Jr.

FILING DATE
June 20, 2003

CONFIRMATION NO. 7061

GROUP 1764

|                               |             | U.              | S. PATENT DOCUMENTS              |                   |
|-------------------------------|-------------|-----------------|----------------------------------|-------------------|
| EXAM-<br>INER<br>INI-<br>TIAL | REF.<br>NO. | DOCUMENT NUMBER | ISSUE DATE /<br>PUBLICATION DATE | NAME              |
|                               | AA          | 4,785,676       | 22-NOV-88                        | DeOca, et al.     |
|                               | AB          | 4,999,307       | 12-MAR-91                        | Oakley            |
|                               | AC          | 5,755,155       | 26-MAY-98                        | Buesing           |
|                               | AD          | 5,771,917       | 30-JUN-98                        | Carney, et al.    |
|                               | AE          | 5,833,826       | 10-NOV-98                        | Nordman           |
|                               | AF          | 5,948,998       | 07-SEP-99                        | Witte, et el.     |
|                               | AG          | 5,985,121       | 16-NOV-99                        | Wu, et al.        |
|                               | AH          | 6,491,804 B2    | 10-DEC-2002                      | Manz, et al.      |
|                               | AI          | RE37,941 E      | 31-DEC-2002                      | Guttman           |
|                               | AJ          | 6,537,432 B1    | 25-MAR-2003                      | Schneider, et al. |
|                               | AK          |                 |                                  |                   |
|                               | AA2         |                 |                                  |                   |
|                               | AB2         |                 |                                  |                   |
|                               | AC2         |                 |                                  |                   |
|                               | AD2         |                 |                                  |                   |
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|                               | AF2         |                 |                                  |                   |
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|                               | AA3         |                 |                                  |                   |
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October 27, 2003

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| ATTORNEY DOCKET NO. |
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APPLICATION NO. 10/601,083

APPLICANT

George E. Barringer, Jr.

FILING DATE
June 20, 2003

CONFIRMATION NO. 7061

GROUP 1764

|   |     |                 | FOREIGN PATENT I | OOCUMENTS |              |              |
|---|-----|-----------------|------------------|-----------|--------------|--------------|
|   |     | DOCUMENT NUMBER | DATE             | COUNTRY   | TRANS<br>YES | LATION<br>NO |
|   | AL  | EP 0 566 645 B1 | 26-OCT-94        | PCT       |              |              |
|   | AM  | EP 0 607 234 B1 | 03-MAY-95        | PCT       | 18           | X            |
|   | AN  | WO 93/06741     | 15-APR-93        | PCT       | abstract     |              |
|   | AO  |                 |                  |           |              |              |
|   | AP  |                 |                  |           |              |              |
|   | AQ  |                 |                  |           |              |              |
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|   | AM2 |                 |                  |           |              |              |
|   | AN2 |                 |                  |           |              |              |
|   | AO2 |                 |                  |           |              |              |
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|   | AL3 |                 |                  |           |              |              |
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|   | AM4 |                 |                  |           |              |              |
|   | AN4 |                 |                  |           |              |              |
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|   | AQ4 |                 |                  |           |              |              |
|   | AL5 |                 |                  |           |              |              |
|   | AM5 |                 |                  |           |              |              |

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| PTO-1449 REPRODUCED                                | ATTORNEY DOCKET NO. 3551.1005-000  | APPLICATION NO. 10/601,083 |               |  |
|--|------------------------------------|----------------------------|---------------|--|
| October 27, 2003  Use several sheets if necessary) | APPLICANT George E. Barringer, Jr. |                            |               |  |
|  | FILING DATE June 20, 2003          | CONFIRMATION NO. 7061      | GROUP<br>1764 |  |

|      | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)   |
|------|--|
| . AI | Arce, L, et al., "On-line Ion-exchange Preconcentration in a Flow Injection System Coupled to Capillary Electrophoresis for the Direct Determination of UV Absorbing Anions," Analytica Chimica Acta, 390: 39-44 (1999).   |
| AS   | Burgi, D. S. and Chien R., "Optimizatin in Sample Stacking for High-Performance Capillary Electrophoresis," <i>Analytical Chemistry</i> , 63(18): 2042-2047 (1991).  |
| A    | Bleha, M, et al., "Role of Convection in Dialysis Desalination of Protein Mixtures by Microporous Charged Neosepta Membranes," <i>Membrane</i> : 21(2): 144-152 (1996).  |
| A    | Chen, H and Fang, Z, "Combination of Flow Injection with Capillary Electrophoresis. Part 3. On-line Sorption Column Preconcentration Capillary Electrophoresis System," <i>Analytica Chimica Acta</i> : 355: 135-143 (1997).   |
| A    | Chien, R. and Burgi, D. S., "Sample Stacking of an Extremely Large Injection Volume in High-Performance Capillary Eletrophoresis," <i>Analytical Chemistry</i> , 64(9): 1046-1050 (1992).  |
| A    | Jiang, Z., et al., "Separation of Pyridazinone Derivatives Using Pressurized Gradient Capillary Electrochromatography," J. Microcolumn Separations: 13(5) 191-196 (2001).  |
| , A2 | Jin, H., et al., "Purification and Renaturation of Recombinant Human Lymphotoxin (Tumour Necrosis Factor Beta) Expressed in Escherichia coli as Inclusion Bodies," J. Chem. Tech. Biotechnol., 59: 67-72 (1994).   |
| A    | Kaul, R. and Mattiasson, B, "Secondary Purification," Bioseparation, 3: 1-26 (1992).   |
| AZ   | Kuban, P., et al., "New Interface for Coupling Flow-injection and Capillary Electrophoresis," Analytica Chimica Acta, 337: 117-124 (1997).   |
| AI   | Lacoste, B., et al., "Study of an Aerobic Concentrated Culture Reactor Coupled to Separation by Crossflow Micro- or Ultra-filtration Through Inorganic Membranes. Initial Approach to a Depollution Application," REVUE DES SCIENCES DE L'EAU, 6(4): 363-380 (1993). |
| AS   | Masi, C. G., "Choosing Automation for Fast Liquid Sample Handling," <i>Drug Discovery &amp; Development</i> , January issue: 36-41 (2003).   |
| A    | Seifert, G. K. E. and Matteau, P. P., "An Automatic Aseptic Bioreactor Sampling System," <i>Biotechnology and Bioengineering</i> , 32: 923-926 (1988).   |

| EXAMINER | DATE CONSIDERED |
|----------|-----------------|
|          |                 |
|          |                 |

| PTO-1449 REPRODUCED  | ATTORNEY DOCKET NO.<br>3551.1005-000 | APPLICATION NO. 10/601,083 |               |
|--|--------------------------------------|----------------------------|---------------|
| INFORMATION DISCLOSURE CITATION N AN APPLICATION October 27, 2003 See several sheets if necessary) | APPLICANT George E. Barringer, Jr.   |                            |               |
|  | FILING DATE June 20, 2003            | CONFIRMATION NO. 7061      | GROUP<br>1764 |

|     | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)  |  |  |
|-----|---|--|--|
| AU2 | Shihabi, Z., "Stacking in Capillary Zone Electrophoresis," <i>Journal of Chromatography A</i> , 902: 107-117 (2000).  |  |  |
| AV2 | Sinacola, J. R. and Robinson, A.S., "Rapid Refolding and Polishing of Single-chain Antibodies from Escherichia coli Inclusion Bodies," Protein Expression & Purification, 26: 301-308 (2002). |  |  |
| AW2 | Tishchenko, G., et al., "Separation of Specific Immunoglobulin. 1. Desalination Using a Membrane System," Bioseparation, 5: 19-25 (1995).   |  |  |